**CFS**

Natural Resources Canada - Canadian Forest Service (CFS) conducts research to develop information and decision support systems to monitor and predict wildland fire activity to enhance fire management efficiency and effectiveness in Canada and internationally.

**WMO**

The World Meteorological Organization (WMO), founded in 1950, is a specialized agency of the United Nations for weather, climate, and water. WMO contributes to the understanding of the interactions between climate and agriculture through dedicated observations of the climate system; improvements in the application of agrometeorological methods especially with climate predictions; proper assessment and management of water resources; and promotion of capacity building in the application of meteorological and hydrological data.

**GOFC-GOLD**

Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD) is a coordinated international effort to ensure a continuous program of space-based and in situ forest and land cover observations, including the effects of fire. The GOFC-GOLD fire monitoring and mapping implementation team works closely with several regional networks around the globe.

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**International Workshop on Advances in Operational Weather Systems for Fire Danger Rating**

For more information on this workshop please contact:

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First Announcement  
March 2008

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International Workshop on Advances in Operational Weather Systems for Fire Danger Rating  
Edmonton, Canada  
14-16 July 2008
INTRODUCTION
Efforts to develop fire danger rating systems have been driven by a concern about large fires, particularly those burning out of control and endangering human lives and property. Fire’s influence on and response to the changing global climate and, on a smaller scale, fire’s effects on regional and local air quality have become international issues. As countries have sought to improve public health and safety, wildland and agricultural burning have attracted increasing attention as sources of concern and become the target of regulatory attention.

Fires burn in vegetative fuels largely as a function of weather conditions. Meteorological data are critical to forecasting the potential for fires to get started and for their behavior once started. A third area of meteorological data needed relates to predicting smoke trajectories and dispersion. The World Meteorological Organization (WMO), the Canadian Forest Service (CFS) and others, have addressed this issue over the years by developing tools to evaluate and predict the effects of weather and climate on fires and their potential. One of the key WMO focus areas addressed from 2008-2011 is Agrometeorological Aspects of Sustainable Agricultural Development. A key performance target is the production of operational guidelines for fire weather agrometeorology by 2009.

It is with this background that the CFS, WMO, and panel for Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD), and in collaboration with a number of other agencies are organizing an International Workshop on Advances in Operational Weather Systems for Fire Danger Rating in Edmonton, Canada from 14 to 16 July 2008.

SPECIFIC OBJECTIVES OF THE WORKSHOP
The workshop will review operational methods used in fire danger rating (FDR) systems from around the globe and discuss new developments in system design and potential enhancements. Anticipated workshop sessions include:

- Overview of FDR approaches and role of weather information in fire management including concepts and terminology, purposes/requirements, limitations, etc.
- Reports on operational and prototype weather-based FDR systems from around the globe, including North America, Europe, Russia, Southeast and East Asia, Australasia, Latin America, Africa, etc.
- Opportunities for FDR system enhancement with break out groups on:
  - Weather observations and networks (access and adequacy of in situ data, use of remote sensing, etc.)
  - Data management (collection and storage, spatial processing and display, dissemination)
  - Weather analyses (fire weather normals, short & medium term weather forecasts)
  - Approaches to defining and evaluating fire danger levels (calibration, validation)
  - Complimentary indices of fire danger (live vegetation, curing, soil moisture, etc.)
  - Smoke forecasting and monitoring (emissions, dispersion, etc.)
- Operational guidelines for weather-based FDR including:
  - Discussions with provincial and national fire information centres

EXPECTED OUTCOMES OF THE WORKSHOP
The target audience of the workshop includes meteorologists, fire scientists, practitioners and managers of wildland fire prevention and mitigation, environmental monitoring organizations and the earth observation community.

Senior experts in several fields will be invited to prepare state-of-the-art discussion papers to address the above objectives, and these papers will be collected in a report to be prepared soon after the Workshop. The programme will be designed in such a way as to engage all the participants in discussions on each of these papers and to develop appropriate strategies to cope with operational fire weather systems and their application in fire management.

Recommendations from the Workshop will be considered at the ensuing session of the Commission for Agricultural Meteorology of WMO for transferring appropriate implementation strategies and related services. As well, the workshop will contribute to the 10-year work plan of the Group on Earth Observations (GEO) towards development of the Global Earth Observation System of Systems (GEOSS).